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PIPELINE SAFETY

Preliminary Information on the Office of Pipeline Safety's Actions to Strengthen Its Enforcement Program

Statement of Katherine Siggerud, Director
Physical Infrastructure Issues

July 20, 2004

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Highlights

Highlights of GAO-04-985T, a testimony before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

Interstate pipelines carrying natural gas and hazardous liquids (such as petroleum products) are safer to the public than other modes of freight transportation. The Office of Pipeline Safety (OPS), the federal agency that administers the national regulatory program to ensure safe pipeline transportation, has been undertaking a broad range of activities to make pipeline transportation safer. However, the number of serious accidents—those involving deaths, injuries, and property damage of $50,000 or more—has not fallen. When safety problems are found, OPS can take enforcement action against pipeline operators, including requiring the correction of safety violations and assessing monetary sanctions (civil penalties).

This testimony is based on ongoing work for the House Committee on Energy and Commerce and for other committees, as required by the Pipeline Safety Improvement Act of 2002. The testimony provides preliminary results on (1) the effectiveness of OPS's enforcement strategy and (2) OPS's assessment of civil penalties.

What GAO Recommends

GAO expects to issue a report in the next several days that will address these and other topics and anticipates making recommendations aimed at improving OPS's enforcement program and management controls over civil penalty collection.

www.gao.gov/cgi-bin/getrpt?GAO-04-985T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Katherine Siggerud at (202) 512-2834 or siggerudk@gao.gov.

What GAO Found

The effectiveness of OPS's enforcement strategy cannot be determined because the agency has not incorporated three key elements of effective program management—clear program goals, a well-defined strategy for achieving goals, and performance measures that are linked to program goals. (See below.) Without these key elements, the agency cannot determine whether recent and planned changes in its strategy will have the desired effects on pipeline safety. Over the past several years, OPS has focused primarily on other efforts—such as developing a new risk-based regulatory approach—that it believes will change the safety culture of the industry. OPS has also became more aggressive in enforcing its regulations and now plans to further strengthen the management of its enforcement program. In particular, OPS is developing an enforcement policy that will help define its enforcement strategy and has taken initial steps toward identifying new performance measures. However, OPS does not plan to finalize the policy until 2005 and has not adopted key practices for achieving successful performance measurement systems, such as linking measures to goals.

Incorporation of Key Program Management Elements into OPS's Enforcement Strategy

Element	Extent
Clear program goals.	○
Well-defined strategy for achieving goals.	◒
Performance measures linked to program goals.	◒

● Fully incorporated ◒ Partially incorporated ○ Not incorporated

Source: GAO.

OPS increased both the number and the size of the civil penalties it assessed against pipeline operators over the last 4 years (2000-2003) following a decision to be "tough but fair" in assessing penalties. OPS assessed an average of 22 penalties per year during this period, compared with an average of 14 per year for the previous 5 years (1995-1999), a period of more lenient "partnering" with industry. In addition, the average penalty increased from $18,000 to $29,000 over the two periods. About 94 percent of the 216 penalties levied from 1994 through 2003 have been paid. The civil penalty is one of several actions OPS can take when it finds a violation, and these penalties represent about 14 percent of all enforcement actions over the past 10 years. While OPS has increased the number and the size of its civil penalties, stakeholders—including industry, state, and insurance company officials and public advocacy groups—expressed differing views on whether these penalties deter noncompliance with safety regulations. Some, such as pipeline operators, thought that any penalty was a deterrent if it kept the pipeline operator in the public eye, while others, such as safety advocates, told us that the penalties were too small to be effective sanctions.

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to participate in this hearing on progress made by the Office of Pipeline Safety (OPS) in implementing the provisions of the Pipeline Safety Improvement Act of 2002. The act strengthens federal pipeline safety programs, state oversight of pipeline operators, and public education on pipeline safety. My remarks center on work, required by the act, that we have almost completed on the effectiveness of OPS's enforcement strategy and its use of monetary sanctions (civil penalties) when safety problems are found. The act also requires that we report in 2006 on OPS's implementation of its risk-based safety program, called integrity management, and on a requirement that operators assess their facilities every 7 years for safety risks. We expect to begin work on these two topics next year.

OPS has been taking many steps to make pipeline transportation safer. A cornerstone to OPS's efforts over the past several years has been the agency's development and implementation of a risk-based approach that it believes will fundamentally improve the safety of pipeline transportation. This approach, called integrity management, requires interstate pipeline operators to identify and fix safety-related threats to their pipelines in areas where an accident could have the greatest consequences. OPS believes that this approach has more potential to improve safety than its traditional approach, which focused on enforcing compliance with safety standards regardless of the threat to pipeline safety. Officials have emphasized that integrity management, coupled with other initiatives, such as oversight of operators' programs to qualify employees to operate their pipelines, represents a systematic approach to overseeing and improving pipeline safety that will change the safety culture of the industry and drive down the number of accidents.

Now that its integrity management approach and other initiatives are substantially under way, OPS recognizes that it needs to turn its attention to the management of its enforcement program. Accordingly, my testimony today focuses on opportunities for

improving aspects of OPS's enforcement program that should be useful to OPS as it decides how to proceed and to this subcommittee as it continues to exercise oversight.

My statement is based on the preliminary results of our ongoing work for the House Committee on Energy and Commerce and for others. As directed by the Pipeline Safety Improvement Act of 2002, we have been (1) evaluating the effectiveness of OPS's enforcement strategy and (2) examining OPS's assessment of monetary sanctions (called civil penalties) against interstate pipeline operators that violate federal pipeline safety rules. We expect to report on the results of our work on these and other issues in the next few days.

Our work is based on our review of laws, regulations, program guidance, and discussions with OPS officials and a broad range of stakeholders.[1] To evaluate the effectiveness of OPS's enforcement strategy, we determined the extent to which the agency's strategy incorporates three key elements of effective program management: clear program goals, a well-defined strategy for achieving goals, and measures of performance that are linked to program goals. We also examined how OPS proposed and assessed civil penalties from 1994 through 2003 and the extent to which pipeline operators have paid them.[2] Finally, we interviewed stakeholders on whether OPS's civil penalties help deter safety violations. As part of our work, we assessed internal controls and the reliability of the data elements needed for this engagement, and we determined that the data elements, with one exception, were sufficiently reliable for our purposes.[3] We performed our work in accordance with generally accepted government auditing standards.

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[1]These stakeholders represent industry trade associations, pipeline companies, federal enforcement agencies, state pipeline agencies and associations, pipeline safety advocacy groups, and pipeline insurers.

[2]Before OPS imposes a civil penalty, it issues a notice of probable violation to the pipeline operator that documents the alleged violation and identifies the proposed civil penalty amount. OPS then allows the operator to present additional evidence. Unless the proposed violation and penalty are withdrawn after this step, OPS issues a final order that requires the operator to pay the penalty (termed "assessed penalties").

[3]The data elements needed to determine when civil penalties were paid were, in our opinion, too unreliable to use to report on the timeliness of payments. This limitation did not create a major impediment to our reporting on OPS's use of civil penalties overall.

In summary:

- The effectiveness of OPS's enforcement strategy cannot be evaluated because the agency has not incorporated three key elements of effective program management—clear program goals, a well-defined strategy for achieving those goals, and measures of performance that are linked to the program goals. Without these three key elements, OPS cannot determine whether recent and planned changes in its enforcement strategy are having or will have the desired effects on pipeline safety. Under a more aggressive enforcement strategy (termed "tough but fair") that OPS initiated in 2000, the agency is using the full range of its enforcement tools, rather than relying primarily as it did before on more lenient administrative actions, such as warning letters. However, OPS has not established goals that specify the intended results of this new strategy, developed a policy that describes the strategy and the strategy's contribution to pipeline safety, or put measures in place that would allow OPS to determine and demonstrate the effects of this strategy on pipeline safety. OPS is developing an enforcement policy that will help define its enforcement strategy and has taken some initial steps toward identifying new measures of enforcement performance. However, it does not anticipate finalizing this policy until sometime in 2005 and has not adopted key practices for achieving successful performance measurement systems, such as linking measures to program goals.

- OPS increased both the number and the size of the civil penalties it assessed in response to criticism that its enforcement activities were weak and ineffective. For example, from 2000 through 2003, following its decision to be tough but fair in assessing civil penalties, OPS assessed an average 22 penalties per year, compared with an average of 14 penalties per year from 1995 through 1999, when OPS's policy was to "partner" with industry, rather than primarily to enforce compliance. In addition, from 2000 through 2003, OPS assessed an average civil penalty of about $29,000, compared with an average of $18,000 from 1995 through 1999. Departmental data show that operators have paid 94 percent (202

of 216) of the civil penalties issued over the past 10 years. OPS assessed the penalty that it proposed 69 percent of the time (150 of 216 civil penalties). For the remaining 66 penalties, OPS reduced the assessments by about 37 percent—from a total of about $2.8 million to about $1.7 million. OPS's database does not provide summary information on why penalties are reduced. As a result, we are not able to provide information on the most common reasons why penalties were reduced. Civil penalties are one of several enforcement actions that OPS can take to increase compliance and represent about 14 percent of all enforcement actions taken over the past 10 years. Although OPS has increased both the number and the size of its civil penalties, it is not clear whether this action will help deter noncompliance with the agency's safety regulations. The pipeline safety stakeholders we spoke with expressed differing views on whether OPS's civil penalties deter noncompliance with the pipeline safety regulations. Some—such as pipeline industry officials—said that civil penalties of any size act as a deterrent, in part because they keep companies in the public eye. Others—such as pipeline safety advocacy groups—said that OPS's civil penalties are too small to deter noncompliance.

Background

Pipeline transportation for hazardous liquids and natural gas is the safest form of freight transportation.[4] By one measure, the annual number of accidents, the hazardous liquid pipeline industry's safety record has greatly improved over the past 10 years. (See fig. 1.) From 1994 through 2003, accidents on interstate hazardous liquid pipelines decreased by almost 49 percent from 245 in 1994 to 126 in 2003.[5] However, the industry's safety record for these pipelines has not improved for accidents with the greatest consequences—those resulting in a fatality, injury, or property damage

[4]Hazardous liquid pipelines carry products such as crude oil, diesel fuel, gasoline, jet fuel, anhydrous ammonia, and carbon dioxide.

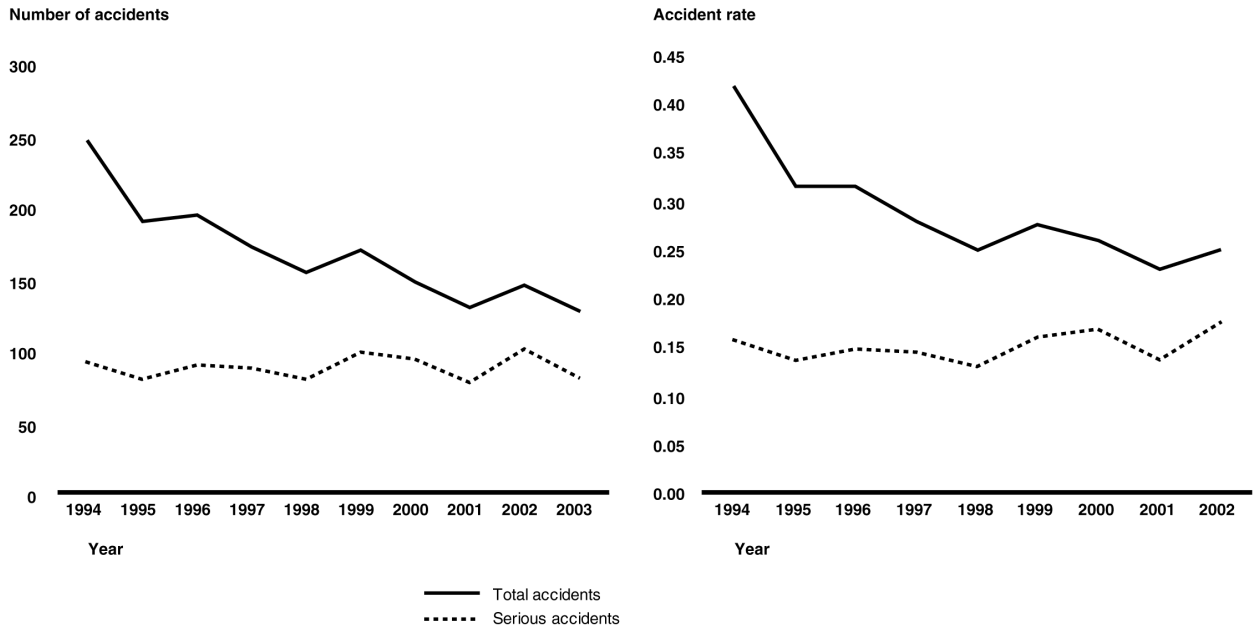
[5]Until February 2002, OPS required pipeline operators to report incidents with gross product losses of 50 barrels or more. In February 2002, OPS reduced the reporting threshold to 5 barrels. To maintain consistency over the 10-year period on which we are reporting, we use the 50-barrel threshold for product losses after February 2002.

totaling $50,000 or more—which we term serious accidents.[6] The number of serious accidents stayed about the same over the 10-year period—about 88 every year. The overall accident rate for hazardous liquid pipelines —which considers both the amounts of products and the distances shipped—decreased from about 0.41 accidents per billion ton-miles shipped in 1994 to about 0.25 accidents per billion ton-miles shipped in 2002.[7] The accident rate for serious interstate hazardous liquid pipeline accidents stayed the same, averaging about 0.15 accidents per billion ton-miles shipped from 1994 through 2002.

[6]OPS requires that operators of hazardous liquid and natural gas pipelines report accidents involving deaths, injuries, and $50,000 or more worth of property damage, among other things. We selected this indicator because these reporting requirements are common to both types of pipelines and because it reflects accidents with serious consequences.

[7]A ton-mile is 1 ton of a product shipped 1 mile. Aggregated industry data on the amounts of products shipped through hazardous liquid pipelines for 2003 are not available.

Figure 1: Numbers of Accidents and Accident Rate for Interstate Hazardous Liquid Pipelines, 1994 through 2003



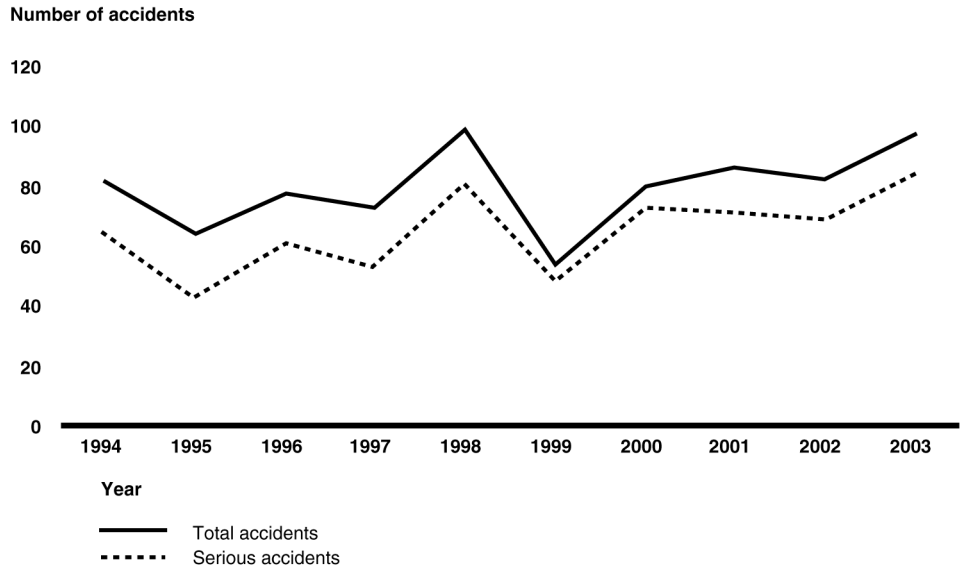
Source: GAO presentation of OPS and the Association of Oil Pipe Lines data.

Notes: The hazardous liquid accident rate is expressed in terms of accidents per billion ton-miles of petroleum products shipped. Federal agencies and industry associations we contacted could not provide data on other hazardous liquids shipped.

Aggregated industry data on the amounts of products shipped through hazardous liquid pipelines for 2003 are not available, so we do not present accident rate information for this year.

In contrast to the decreasing number of accidents overall for hazardous liquid pipelines, the annual number of accidents on interstate natural gas pipelines increased by almost 20 percent from 81 in 1994 to 97 in 2003. (See fig. 2.) The number of serious accidents on interstate natural gas pipelines also increased, from 64 in 1994 to 84 in 2003, though they have fluctuated considerably over this time. Information on accident rates for natural gas pipelines is not available because of the lack of data on the amount of natural gas shipped through pipelines. For both hazardous liquid and natural gas pipelines, the lack of improvement in the number of serious accidents may be due in part to the relatively small number of these accidents.

Figure 2: Number of Accidents on Interstate Natural Gas Pipelines, 1994 through 2003



Source: GAO presentation of OPS data.

Note: Data on the amounts of natural gas shipped through interstate pipelines are not available; these data are needed to calculate the accident rate.

OPS, within the Department of Transportation's Research and Special Programs Administration (RSPA), administers the national regulatory program to ensure the safe transportation of natural gas and hazardous liquids by pipeline. The office attempts to ensure the safe operation of pipelines through regulation, national consensus standards,[8] research, education (e.g., to prevent excavation-related damage), oversight of the industry through inspections, and enforcement when safety problems are found. The office uses a variety of enforcement tools, such as compliance orders and corrective action orders that require pipeline operators to correct safety violations, notices of amendment to remedy deficiencies in operators' procedures, administrative actions to address minor safety problems, and civil penalties. OPS is a small federal agency. In fiscal year 2003, OPS employed about 150 people, about half of whom were pipeline inspectors.

Before imposing a civil penalty on a pipeline operator, OPS issues a notice of probable violation that documents the alleged violation and a notice of proposed penalty that

[8]Standards are technical specifications that pertain to products and processes, such as the size, strength, or technical performance of a product. National consensus standards are developed by standard-setting entities, such as the American Society for Testing and Materials, on the basis of an industry consensus.

identifies the proposed civil penalty amount. Failure by an operator to inspect the pipeline for leaks or unsafe conditions is an example of a violation that may lead to a civil penalty. OPS then allows the operator to present evidence either in writing or at an informal hearing. Attorneys from RSPA's Office of Chief Counsel preside over these hearings. Following the operator's presentation, the civil penalty may be affirmed, reduced, or withdrawn. If the hearing officer determines that a violation did occur, the Office of Chief Counsel issues a final order that requires the operator to correct the safety violation (if a correction is needed) and pay the penalty (called the "assessed penalty"). The operator has 20 days after the final order is issued to pay the penalty. The Federal Aviation Administration (FAA) collects civil penalties for OPS.[9]

From 1992 through 2002, federal law allowed OPS to assess up to $25,000 for each day a violation continued, not to exceed $500,000 for any related series of violations. In December 2002, the Pipeline Safety Improvement Act increased these amounts to $100,000 and $1 million, respectively.

Key Management Elements Are Needed to Determine the Effectiveness of OPS's Enforcement Strategy

The effectiveness of OPS's enforcement strategy cannot be determined because OPS has not incorporated three key elements of effective program management—clear performance goals for the enforcement program, a fully defined strategy for achieving these goals, and performance measures linked to goals that would allow an assessment of the enforcement strategy's impact on pipeline safety.

OPS's Enforcement Strategy Has Been Evolving

OPS's enforcement strategy has undergone significant changes in the last 5 years. Before 2000, the agency emphasized partnering with the pipeline industry to improve pipeline safety rather than punishing noncompliance. In 2000, in response to concerns

[9]To consolidate its accounting functions, in September 1993 RSPA began contracting with FAA to collect its accounts receivable, including civil penalties for OPS.

that its enforcement was weak and ineffective, the agency decided to institute a "tough but fair" enforcement approach and to make greater use of all its enforcement tools, including larger and more frequent civil penalties.[10] In 2001, to further strengthen its enforcement, OPS began issuing more corrective action orders requiring operators to address safety problems that led or could lead to pipeline accidents. In 2002, OPS created a new Enforcement Office to focus more on enforcement and help ensure consistency in enforcement decisions. However, this new office is not yet fully staffed, and key positions remain vacant.

In 2002, OPS began to enforce its new integrity management and operator qualification standards in addition to its minimum safety standards. Initially, while operators were gaining experience with the new, complex integrity management standards, OPS primarily used notices of amendment, which require improvements in procedures, rather than stronger enforcement actions. Now that operators have this experience, OPS has begun to make greater use of civil penalties in enforcing these standards.

OPS has also recently begun to reengineer its enforcement program. Efforts are under way to develop a new enforcement policy and guidelines, develop a streamlined process for handling enforcement cases, modernize and integrate the agency's inspection and enforcement databases, and hire additional enforcement staff. However, as I will now discuss, OPS has not put in place key elements of effective management that would allow it to determine the impact of its evolving enforcement program on pipeline safety.

OPS Needs Goals for Its Enforcement Program

Although OPS has overall performance goals, it has not established specific goals for its enforcement program. According to OPS officials, the agency's enforcement program is designed to help achieve the agency's overall performance goals of (1) reducing the

[10]For example, in May 2000, we reported that OPS had dramatically reduced its use of civil penalties and increased its use of administrative actions over the years without assessing the effects of these actions.

number of pipeline accidents by 5 percent annually and (2) reducing the amount of hazardous liquid spills by 6 percent annually.[11] Other agency efforts—including the development of a risk-based approach to finding and addressing significant threats to pipeline safety and of education to prevent excavation-related damage to pipelines—are also designed to help achieve these goals.

OPS's overall performance goals are useful because they identify the *end outcomes*, or ultimate results, that OPS seeks to achieve through all its efforts. However, OPS has not established performance goals that identify the *intermediate outcomes*, or direct results, that OPS seeks to achieve through its enforcement program. Intermediate outcomes show progress toward achieving end outcomes. For example, enforcement actions can result in improvements in pipeline operators' safety performance—an intermediate outcome that can then result in the end outcome of fewer pipeline accidents and spills. OPS is considering establishing a goal to reduce the time it takes the agency to issue final enforcement actions. While such a goal could help OPS improve the management of the enforcement program, it does not reflect the various intermediate outcomes the agency hopes to achieve through enforcement. Without clear goals for the enforcement program that specify intended intermediate outcomes, agency staff and external stakeholders may not be aware of what direct results OPS is seeking to achieve or how enforcement efforts contribute to pipeline safety.

OPS Needs to Fully Define Its Enforcement Strategy

OPS has not fully defined its strategy for using enforcement to achieve its overall performance goals. According to OPS officials, the agency's increased use of civil penalties and corrective action orders reflects a major change in its enforcement strategy. Although OPS began to implement these changes in 2000, it has not yet developed a policy that defines this new, more aggressive enforcement strategy or describes how it will contribute to the achievement of its performance goals. In

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See *Pipeline Safety: Office of Pipeline Safety Is Changing How It Oversees the Pipeline Industry*, GAO/RCED-00-128 (Washington, D.C.: May 15, 2000).

addition, OPS does not have up-to-date, detailed internal guidelines on the use of its enforcement tools that reflect its current strategy. Furthermore, although OPS began enforcing its integrity management standards in 2002 and received greater enforcement authority under the 2002 pipeline safety act, it does not yet have guidelines in place for enforcing these standards or implementing the new authority provided by the act.[12]

According to agency officials, OPS management communicates enforcement priorities and ensures consistency in enforcement decisions through frequent internal meetings and detailed inspection protocols and guidance. Agency officials recognize the need to develop an enforcement policy and up-to-date detailed enforcement guidelines and have been working to do so. To date, the agency has completed an initial set of enforcement guidelines for its operator qualification standards and has developed other draft guidelines. However, because of the complexity of the task, agency officials do not expect that the new enforcement policy and remaining guidelines will be finalized until sometime in 2005.

The development of an enforcement policy and guidelines should help define OPS's enforcement strategy; however, it is not clear whether this effort will link OPS's enforcement strategy with intermediate outcomes, since agency officials have not established performance goals specifically for their enforcement efforts. We have reported that such a link is important.[13]

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[11]OPS refers to the release of natural gas from a pipeline as an "incident" and a spill from a hazardous liquid pipeline as an "accident." For simplicity, this testimony refers to both as "accidents."

[12]We have reported on challenges that OPS faces in enforcing its complex integrity management requirements consistently and effectively. See our August 2002 report, *Pipeline Safety and Security: Improved Workforce Planning and Communication Needed,* GAO-02-785 (Washington, D.C.: Aug. 26, 2002).

[13]See U.S. General Accounting Office, *Managing for Results: Strengthening Regulatory Agencies' Performance Management Practices*, GAO/GGD-00-10 (Washington, D.C.: Oct. 28, 1999); *Agency Performance Plans: Examples of Practices That Can Improve Usefulness to Decisionmakers*, GAO/GGD/AIMD-99-69 (Washington, D.C.: Feb. 26, 1999); and *The Results Act: An Evaluator's Guide to Assessing Agency Annual Performance Plans*, GAO/GGD-10.1.20 (Washington, D.C., Apr. 1998).

OPS Needs Adequate Measures of the Effectiveness of Its Enforcement Strategy

According to OPS officials, the agency currently uses three performance measures and is considering three additional measures to determine the effectiveness of its enforcement activities and other oversight efforts. (See table 1.) The three current measures provide useful information about the agency's overall efforts to improve pipeline safety, but do not clearly indicate the effectiveness of OPS's enforcement strategy because they do not measure the intermediate outcomes of enforcement actions that can contribute to pipeline safety, such as improved compliance. The three measures that OPS is considering could provide more information on the intermediate outcomes of the agency's enforcement strategy, such as the frequency of repeat violations and the number of repairs made in response to corrective action orders, as well as other aspects of program performance, such as the timeliness of enforcement actions.[14]

[14]In addition, measures of pipeline operator integrity management performance and of the results of integrity management and operator qualification inspections could provide information on the intermediate outcomes of these regulatory approaches.

Table 1: Enforcement Program Performance Measures That OPS Currently Uses and Is Considering Developing

Measure	Examples
Measures OPS currently uses	
Achievement of agency performance goals	Annual numbers of natural gas and hazardous liquid pipeline accidents and tons of hazardous liquid materials spilled per million ton-miles shipped.
Inspection and enforcement activity	Number of inspections completed; hours per inspection; accident investigations; enforcement actions taken, by type; and average proposed civil penalty amounts.
Integrity management performance	Annual numbers of accidents in areas covered by integrity management standards and of actions by pipeline operators in response to these standards, such as repairs completed and miles of pipeline assessed.[a]
Measures OPS is considering developing	
Management of enforcement actions	The time taken to issue final enforcement actions, the extent to which penalty amounts are reduced, and the extent to which operators commit repeat violations.
Safety improvements ordered by OPS	Actions by pipeline operators in response to corrective action orders, including miles of pipeline assessed, defects discovered, repairs made, and selected costs incurred.
Results of integrity management and operator qualification inspections	The percentage of pipeline operators that did not meet certain requirements and the reduction in the number of operators with a particular deficiency.

Source: GAO analysis of OPS information.

[a]OPS started collecting some of these data in 2002 but does not anticipate obtaining all the information on an annual basis until 2005.

We have found that agencies that are successful in measuring performance strive to establish measures that demonstrate results, address important aspects of program performance, and provide useful information for decision-making.[15] While OPS's new measures may produce better information on the performance of its enforcement program than is currently available, OPS has not adopted key practices for achieving these characteristics of successful performance measurement systems:

- *Measures should demonstrate results (outcomes) that are directly linked to program goals.* Measures of program results can be used to hold agencies accountable for the performance of their programs and can facilitate congressional oversight. If OPS does not set clear goals that identify the desired

[15]See, for example, GAO/GGD/AIMD-99-69; *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1996); and *Tax Administration:*

results (intermediate outcomes) of enforcement, it may not choose the most appropriate performance measures. OPS officials acknowledge the importance of developing such goals and related measures but emphasize that the diversity of pipeline operations and the complexity of OPS's regulations make this a challenging task.[16]

- *Measures should address important aspects of program performance and take priorities into account*. An agency official told us that a key factor in choosing final measures would be the availability of supporting data. However, the most essential measures may require the development of new data. For example, OPS has developed databases that will track the status of safety issues identified in integrity management and operator qualification inspections, but it cannot centrally track the status of safety issues identified in enforcing its minimum safety standards. Agency officials told us that they are considering how to add this capability as part of an effort to modernize and integrate their inspection and enforcement databases.

- *Measures should provide useful information for decision-making, including adjusting policies and priorities*.[17] OPS uses its current measures of enforcement performance in a number of ways, including monitoring pipeline operators' safety performance and planning inspections. While these uses are important, they are of limited help to OPS in making decisions about its enforcement strategy. OPS has acknowledged that it has not used performance measurement information in making decisions about its enforcement strategy. OPS has made progress in this area by identifying possible new measures of enforcement

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IRS Needs to Further Refine Its Tax Filing Season Performance Measures, GAO-03-143 (Washington, D.C.: Nov. 22, 2002).

[16]We have reported on the challenges faced by agencies in developing measures of program results and on their approaches for overcoming such challenges. See, in particular, GAO/GGD-00-10, *Managing for Results: Measuring Program Results That Are Under Limited Federal Control*, GAO/GGD-99-16 (Washington, D.C.: Dec. 11, 1998), and *Managing for Results: Regulatory Agencies Identified Significant Barriers to Focusing on Results*, GAO/GGD-97-83 (Washington, D.C.: June 24, 1997).

[17]See, for example, GAO/GGD-96-118 and U.S. General Accounting Office, *Results-Oriented Government: GPRA Has Established a Solid Foundation for Achieving Greater Results*, GAO-04-38 (Washington, D.C.: Mar. 10, 2004).

results (outcomes) and other aspects of program performance, such as indicators of the timeliness of enforcement actions, that may prove more useful for managing the enforcement program.

OPS Has Increased Its Use of Civil Penalties; the Effect on Deterrence Is Unclear

In 2000, in response to criticism that its enforcement activities were weak and ineffective, OPS increased both the number and the size of the civil monetary penalties it assessed.[18] Pipeline safety stakeholders expressed differing opinions about whether OPS's civil penalties are effective in deterring noncompliance with pipeline safety regulations.

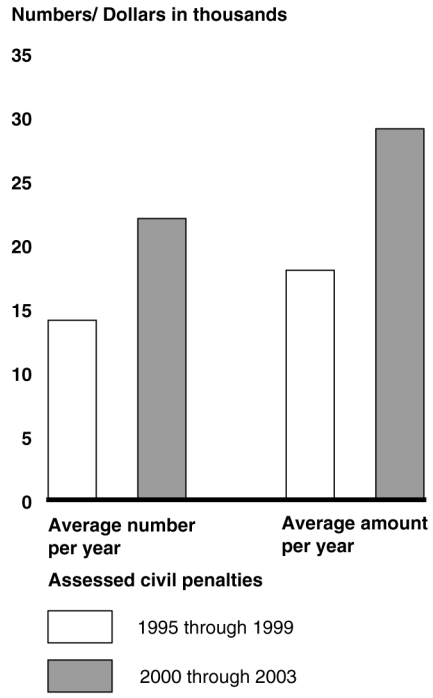
OPS Now Assesses More and Larger Civil Penalties

OPS assessed more civil penalties during the past 4 years under its current "tough but fair" enforcement approach than it did in the previous 5 years, when it took a more lenient enforcement approach. (See fig. 3.) From 2000 through 2003, OPS assessed 88 civil penalties (22 per year on average) compared with 70 civil penalties from 1995 through 1999 (about 14 per year on average). For the first 5 months of 2004, OPS proposed 38 civil penalties. While the recent increase in the number and the size of civil penalties may reflect OPS's new "tough but fair" enforcement approach, other factors, such as more severe violations, may be contributing to the increase as well.

[18]The civil penalty results we present largely reflect OPS's enforcement of its minimum safety standards because integrity management enforcement did not begin until 2002.

Our results may differ from the results that OPS reports because our data are organized differently. OPS reports an action in the year in which it occurred. For example, OPS may propose a penalty in one year and assess it in another year. The data for this action would show up in different years. To better track the disposition of civil penalties, we associated assessed penalties and penalty amounts with the year in which they were proposed—even if the assessment occurred in a later year.

Figure 3: OPS's Use of Civil Penalties, 2000 through 2003, Compared with 1995 through 1999



Source: GAO analysis of OPS and FAA data.

Note: The amounts in this figure may not be comparable to the amounts that OPS reports. See footnote 18.

Overall, OPS does not use civil penalties extensively. Civil penalties represent about 14 percent (216 out of 1,530) of all enforcement actions taken over the past 10 years. OPS makes more extensive use of other types of enforcement actions that require pipeline operators to fix unsafe conditions and improve inadequate procedures, among other things. In contrast, civil penalties represent monetary sanctions for violating safety regulations but do not require safety improvements. OPS may increase its use of civil penalties as it begins to use them to a greater degree for violations of its integrity management standards.

The average size of the civil penalties has increased. For example, from 1995 through 1999, the average assessed civil penalty was about $18,000.[19] From 2000 through 2003,

[19]All amounts are in current year dollars. Inflation was low during the 1995-2003 period. If the effects of inflation were considered, the average assessed penalty amount for 1995 through 1999 would be $21,000 and the average amount for 2000 through 2003 would be $30,000 (in 2003 dollars).

the average assessed civil penalty increased by 62 percent to about $29,000.[20] Assessed penalty amounts ranged from $500 to $400,000.

In some instances, OPS reduces proposed civil penalties when it issues its final order. We found that penalties were reduced 31 percent of the time during the 10-year period covered by our work (66 of 216 instances). These penalties were reduced by about 37 percent (from a total of $2.8 million to $1.7 million). This analysis does not include the extraordinarily large penalty of $3.05 million that OPS proposed as a result of the Bellingham, Washington, accident because including it would have skewed our results by making the average penalty appear to be larger than it actually is.[21] OPS has assessed the operator $250,000 as of July 2004.[22] If we had included this penalty in our analysis we find that over this period OPS reduced total proposed penalties by about two-thirds, from about $5.8 million to about $2 million.

OPS's database does not provide summary information on why penalties are reduced. According to an OPS official, the agency reduces penalties when an operator presents evidence that the OPS inspector's finding is weak or wrong or when the pipeline's ownership changes during the period between the proposed and the assessed penalty. It was not practical for us to gather information on a large number of penalties that were reduced, but we did review several to determine the reasons for the reductions. OPS reduced one of the civil penalties we reviewed because the operator provided evidence that OPS inspectors had miscounted the number of pipeline valves that OPS said the operator had not inspected. Since the violation was not as severe as OPS had stated, OPS reduced the proposed penalty from $177,000 to $67,000. Because we reviewed only a small number of instances in which penalties were reduced, we cannot say whether these examples are typical.

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[20]The median civil penalty size for the 1995-1999 period was about $5,800 and the median size for the 2000-2003 period was $12,700.

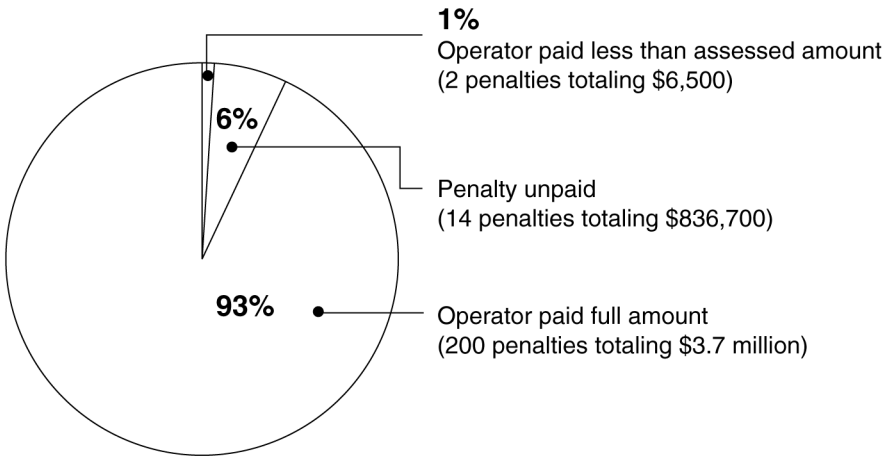
[21]We also excluded from our analysis a proposed $2.5 million penalty resulting from the Carlsbad, New Mexico, accident. OPS had not assessed a penalty as of mid-July. RSPA has referred the penalty to the Department of Justice for judicial action.

[22]OPS proposed a $3.05 million penalty against Equilon Pipeline Company, LLC (Olympic Pipeline Company) for the Bellingham incident and later assessed Shell Pipeline Company (formerly Equilon) $250,000, which it collected. According to RSPA's Office of Chief Counsel, the penalty against Olympic Pipeline is still open, waiting for the company to come out of bankruptcy court.

Operators Paid Full Amounts of Most Civil Penalties

Of the 216 penalties that OPS assessed from 1994 through 2003, pipeline operators paid the full amount 93 percent of the time (200 instances) and reduced amounts 1 percent of the time (2 instances). (See fig. 4.) Fourteen penalties (6 percent) remain unpaid, totaling about $836,700 (or 18 percent of penalty amounts).

Figure 4: Number of Civil Penalties Paid, 1994 through 2003



Source: GAO analysis of OPS and FAA data.

In two instances, operators paid reduced amounts. We followed up on one of these assessed penalties. In this case, the operator requested that OPS reconsider the assessed civil penalty and OPS reduced it from $5,000 to $3,000 because the operator had a history of cooperation and OPS wanted to encourage future cooperation.

Neither FAA's nor OPS's data show why the 14 unpaid penalties have not been collected. From the information provided by both agencies, we determined that OPS closed 2 of the penalty cases without collecting the penalties, operators are appealing 5 penalties, OPS recently assessed 3 penalties, and OPS acknowledged that 4 penalties (totaling $45,200) should have been collected.

The Effect of OPS's Larger Civil Penalties on Deterring Noncompliance Is Unclear

Although OPS has increased both the number and the size of the civil penalties it has imposed, the effect of this change on deterring noncompliance with safety regulations, if any, is not clear. The stakeholders we spoke with expressed differing views on whether the civil penalties deter noncompliance. The pipeline industry officials we contacted believed that, to a certain extent, OPS's civil penalties encourage pipeline operators to comply with pipeline safety regulations because they view all of OPS's enforcement actions as deterrents to noncompliance. However, some industry officials said that OPS's enforcement actions are not their primary motivation for safety. Instead, they said that pipeline operators are motivated to operate safely because they need to avoid any type of accident, incident, or OPS enforcement action that impedes the flow of products through the pipeline and hinders their ability to provide good service to their customers. Pipeline industry officials also said that they want to operate safely and avoid pipeline accidents because accidents generate negative publicity and may result in costly private litigation against the operator.

Most of the interstate agents, representatives of their associations, and insurance company officials expressed views similar to those of the pipeline industry officials, saying that they believe civil penalties deter operators' noncompliance with regulations to a certain extent.[23] However, a few disagreed with this point of view. For example, the state agency representatives and a local government official said that OPS's civil penalties are too small to be deterrents. Pipeline safety advocacy groups that we talked to also said that the civil penalty amounts OPS imposes are too small to have any deterrent effect on pipeline operators. As discussed earlier, for 2000 through 2003, the average assessed penalty was about $29,000.

According to economic literature on deterrence, pipeline operators may be deterred if they expect a sanction, such as a civil penalty, to exceed any benefits of

[23]OPS has agreements with 11 state pipeline agencies, known as interstate agents, to help it inspect segments of interstate pipelines within these states' boundaries. However, OPS undertakes any enforcement actions identified through inspections conducted by interstate agents.

noncompliance.[24] Such benefits could, in some cases, be lower operating costs. The literature also recognizes that the negative consequences of noncompliance--such as those stemming from lawsuits, bad publicity, and the value of the product lost from accidents--can deter noncompliance along with regulatory agency oversight. Thus, for example, the expected costs of a legal settlement could overshadow the lower operating costs expected from noncompliance, and noncompliance might be deterred.

Mr. Chairman, this concludes my prepared statement. We expect to report more fully on these and other issues in our report that we expect to issue later this week. We also anticipate making recommendations to improve OPS's ability to demonstrate the effectiveness of its enforcement strategy and to improve OPS's and FAA's management controls over the collection of civil penalties. I would be pleased to respond to any questions that you or Members of the Subcommittee might have.

Contacts and Acknowledgments

For information on this testimony, please contact Katherine Siggerud at (202) 512-2834 or siggerudk@gao.gov. Individuals making key contributions to this testimony are Jennifer Clayborne, Judy Guilliams-Tapia, Bonnie Pignatiello Leer, Gail Marnik, James Ratzenberger, and Gregory Wilmoth.

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[24]Expected sanctions are the product of the sanction amount and the likelihood of being detected and sanctioned by that amount.